

BULLET-PROOF SOLDIERS.

Conditions Which Would Necessitate New Engines of War.

The Invention of Herr Dowe Would Tend to Bring Out the Athletic Force of Men in Battle If Put Into Practical Use.

If we are right in our reasoning, and if, again, there is not some latent but fatal defect in Herr Dowe's system, the result on warfare will be a very remarkable one. Since the object of war is to kill—"to place hors de combat" is only a less crude way of putting the fact—new ways of killing infantry and cavalry will have to be devised. The chances of hitting men in the face at long distances with rifle fire, says the London Spectator, will not be good enough. But the only ways of killing effectively that will remain open will be artillery fire, close combat with bayonet and clubbed rifle—preferably the latter, as the cuirass will make the bayonet difficult to use with effect—and riding men down by cavalry charges. The first of these, artillery fire, has hitherto been regarded as of comparatively little importance in the matter of killing. It is often declared, indeed, that the chief effect produced by the guns is the moral effect. Though not many are killed, men do not like to be within range of artillery. Possibly, however, the effect of artillery fire could be increased. In any case, and since everything is relative, the fact of the falling off of efficiency in rifle fire must increase the importance of artillery fire.

It is obvious, however, that the chief effect of bullet-proof soldiers on the circumstances of a battle would be to increase enormously the amount of hand-to-hand fighting. But hand-to-hand fighting means an advantage to the strongest and most athletic force. Now it will be seen from the bare enumeration of the changes which seem likely to follow bullet-proof soldiers that a great advantage will be given to England. Bullet-proof cuirasses will give an advantage to the nation which can only bring a small number of troops into the field. But that nation is England. It will increase the importance of artillery. But this should be in favor of England, for though we have not the conscription, and so cannot get men in large quantities, we can manufacture as many guns as we choose. Next, the revival of close combat ought to be in our favor, for Englishmen are certainly better at the rough-and-tumble of close fighting than their neighbors. The infantry are naturally more handy and more athletic, and the cavalry are, if not theoretically better riders, more capable horsemen. An Englishman is more likely to get his horse to do the impossible than a Frenchman or a German. If, then, Herr Dowe's invention enters the region of practical warfare, the change will be in England's favor. It will give us a chance to escape being pressed to the ground by hostile millions.

In the navy, no less than in the army, the cuirass should be of enormous importance. During a sea fight a great many things will want doing under a storm of rifle fire, but will hardly be done except in one of Herr Dowe's jackets. A few bullet-proof sailors would be a godsend to a captain when he was fighting his ship against heavy odds. In the field, too, the cuirass would be of great use to artillerymen. Since they do not have to march, but either ride or sit on the gun carriages, there is no reason why the gunners should not be very elaborately protected by means of Herr Dowe's patent material. But if they are they will be able to work their guns in the open and at close quarters in a way which is now often impossible owing to the fire of sharpshooters. In truth, there are a hundred points on which the bullet-proof clothing alters all the conditions of war. It will alter, too, some of the conditions of civil life. Insurrection against invulnerable men will become even more impossible than it is now. Again, the result on small bodies of men traveling in savage countries will be very marked. When the savage cannot wound his white foe, even men so brave as the Matabeles will find resistance hopeless.

Possibly, however, all we have written is destined to be quite beside the mark, not because of any flaw in Herr Dowe's system, but for a totally different reason. Suppose that the gunsmiths retaliate on Herr Dowe by making a gun that will send a bullet through his cuirass? In that case, the present conditions will remain. We do not say that they will, but undoubtedly they will try. Meanwhile, all we can say is that, in the great duel between attack and defense, the latter, after lying hopelessly beaten for two centuries, has revived, and appears to have given her antagonist a heavy blow. Time will show whether we have to wait fifty years or only six months for counter-stroke.

NOT THE RIGHT TICKET.

The Boy from Far Away China Didn't Believe in Bogus Passes.

A Los Angeles lady was recently engaged in drilling a newly-engaged Chinese boy in answering the door.

"Now, Sing," she said, when the door bell rings, you go to the door, hold out this silver man put card on. You bring card to me. You savee?"

"Yes, ma shabee," replied Sing.

So a rehearsal was gone through. The Angeles lady rang her own door bell. Sing opened the door, received her card, inspected it closely, then followed her into the parlor and presented her with the card. While this was going on the door bell rang again. Sing went to the door. A gentleman was there, who handed his card to the servant. Sing looked at it closely and grinned.

"You no come in."

The visitor indignantly demanded why not.

"I shabee you," said Sing; "you no foolee me. You no got right ticket. No come in."

OLD SOL KNOCKED OUT.

The Photographer Has No Longer Any Need for His Services.

Old Sol has long been unnecessary in the taking of photographs.

Up to the present time, however, he has probably exulted in thinking that his uncertain services must be had to print the photograph.

But again the old chap has been given the go-by, says the New York Advertiser, and he is not now a necessity at any stage of the game. He may sulk and hide his face or pop it out from behind the clouds momentarily as much as he pleases, but with photographers he no longer "cuts any ice."

Electricity has scored a victory over the old chap, and it is practically a knock-out in this particular line.

Before pictures have been taken in the daytime by the aid of electric light and at night by flash light, but to get a proof printed one had to wait until the next afternoon anyhow and sometimes longer, all according to Old Sol's humor.

Now one can go to his photographer—providing that gentleman has the proper apparatus—at any time, even at midnight, and sit for his photograph. Not only that, if he is willing to wait half an hour he may receive a nice, soft print from the negative.

The apparatus consists of an ordinary camera, a forty-five hundred candle power arc light for the taking, a six thousand candle power arc light for the printing.

Instead of sitting in the open room the subject sits in a sort of canopy, the sides and top being white and at the back the ordinary background.

Instead of having the light shine directly on the subject it shines away and is reflected softly back from the white sides.

Watches were held for the test, and a six-second exposure was made. The plate was then developed and dried quickly, coming out good and clear. It was then taken to the printing room, and after ten minutes under the influence of the powerful arc light the paper and negative were taken from the box. The print was remarkably soft, clear and accurate.

All the time taken from the snap of the camera until the print was finished was thirty-two minutes, and ordinary materials only were used.

This relegates Old Sol to the rear—a back number as a photographer's assistant.

Europe's Unhealthy Cities.

The most unhealthy city in Europe, according to statistics recently issued, is Barcelona, Spain, one of the loveliest places in that part of the continent. One who lives in Barcelona increases considerably his chances of death. Of every 1,000 persons, there die in Edinburgh annually 19; in London, 20; in Stockholm, 21; in Brussels, 22; in Berlin and Paris, 23, and in Barcelona, 31. The number of deaths there in every 1,000 people at the present time exceeds the number of births.